

# INVASIVE SPECIES & EXOTIC PESTS

## Variegated Golden Tortrix *Archips xylosteanus*

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Variegated golden tortrix is a leafroller native to Europe and Asia. Also known as apple leafroller or brown oak tortrix, variegated golden tortrix is able to feed on the buds, foliage, flowers, and fruit of many plants. Therefore, this insect may present a threat to fruit crops, particularly Rosaceous plants such as apples, sweet cherry, tart cherry, peaches and pears. While not considered to be a major pest in its native regions, if introduced into the United States where there are no natural enemies, the variegated golden tortrix could build up damaging populations.

### Concern

While variegated golden tortrix has not been found in the United States, it has been spotted in St. John's, Newfoundland. The moths could potentially be transported into other Canadian provinces and from there into the United States. The entire United States, especially the Northeast, provides suitable climate for the variegated golden tortrix to survive and become established. If this were to happen, because of the many plants it can feed on, our economically important crops could be damaged.

### Description

Adult moths are present from late June to mid-August. Although somewhat variable, the markings on the wings help with identification. The forewing has a white to pale pink base color with a brownish tint, over which are dark red/brown markings. The hindwings are a solid gray to brown color. Females have a forewing length between 0.35 inch and 0.40 inch while the males have a forewing length between 0.25 inch and 0.39 inch. Only one generation per year occurs. During



Adult variegated golden tortrix showing markings on forewings and gray to brown hindwings. Photo: Milan Zubrik, Forest Research Institute - Slovakia, Bugwood.org



Adult moth on leaf showing distinctive markings. Photo: Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org

its lifespan, each female can lay 200-300 eggs on branches or tree trunks in shingle-like clusters covered in a brown secretion, which provides camouflage. Eggs overwinter and in spring, depending on the variation in spring temperatures in different regions, hatching occurs late March to early April or late April to early May. The late instar larvae are easy to recognize because of a distinctive white line on the black head capsule and the dark brown to black legs on the gray green to grayish white body. In Europe, variegated golden tortrix larvae pupate in June inside the rolled leaves, with adult moths emerging a few weeks later. Pupae are brown.

## Damage

The early instar larvae feed on young, developing buds, leaves, flowers and fruit. Later in spring, larvae feed primarily on the underside of leaves, rolling them together to provide a shelter from which they emerge to feed. If populations are high enough plants may be defoliated, plant health negatively affected and yield reduced. Direct damage by early instar larvae feeding on young fruits might also occur.

## For More Information

**New Pest Report Guidelines: Variegated Golden Tortrix. 2012. The United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (USDA-APHIS-PPQ).** [https://www.aphis.usda.gov/import\\_export/plants/manuals/emergency/downloads/nprg-vgtortrix.pdf](https://www.aphis.usda.gov/import_export/plants/manuals/emergency/downloads/nprg-vgtortrix.pdf)

**Variegated Golden Moth Tortrix Factsheet. 2009. Rhode Island Dept of Environmental Management/Division of Agriculture, CAPS.** [http://www.dem.ri.gov/programs/bnatres/agricult/pdf/pests\\_variegatedgoldentortrixmoth.pdf](http://www.dem.ri.gov/programs/bnatres/agricult/pdf/pests_variegatedgoldentortrixmoth.pdf)



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Variegated golden tortrix larva on leaf showing distinct white line on black head capsule. Photo: Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org



Variegated golden tortrix pupa on leaf. Photo: Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org